Epilepsia partialis continua: a unique presenting feature of Anti-NMDAR encephalitis in children

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INTRODUCTION

- Anti-NMDAR encephalitis is the most common pediatric autoimmune encephalitis and poorly reported cases in India.
- It account for 4% of all the encephalitis reported.
- Anti NMDAR encephalitis is most commonly affects adolescent girls
- 40% of all reported cases are below 18 years of age.
- The most common clinical features are acute onset neuropsychiatric symptoms in a previously healthy child.

DISCUSSION

- Most common presenting symptom in children with AE are neurological as against adults who present with psychiatric symptoms first.[1]
- The most common neurological symptoms occurring in previously healthy children are altered mental status, disturbed sleep, movement disorders and refractory seizures.
- Focal seizures are more common than generalised seizures, but Epilepsia partialis continua (EPC) in rarely reported in children with AE. [2]

CONCLUSION

Acute-onset EPC with behavioural changes should raise the strong suspicion of pediatric AE, particularly NMDAR encephalitis. Early clinical suspicion followed by aggressive and early immunotherapies are associated with better outcome and prognosis

REFERENCES

1. Nosadini M, Thomas T, Eyre M et al. International Consensus Recommendations for the Treatment of Pediatric NMDAR Antibody Encephalitis. Neurol Neuroimmunol Neuroinflamm. 2021 Jul 22;8(5):e1052.
2. SetH V, Kushwaha S, Gupta C et al. Epilepsia partialis continua as the presenting feature of anti-NMDA receptor encephalitis in a young male. Neurol Sci. 2021 Sep;42(9):3911-3913.

CASE PRESENTATION

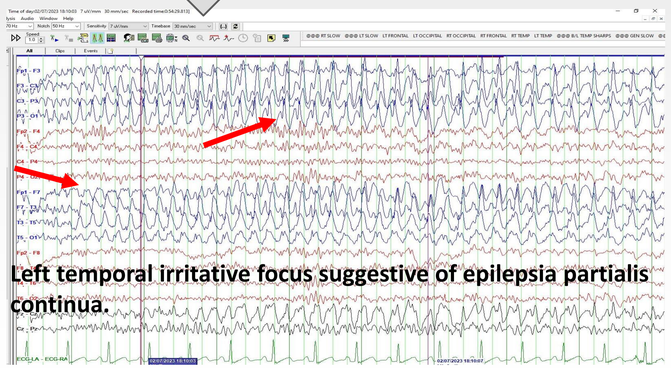
Day 0

13-yr healthy girl came with 1st unprovoked generalised motor seizures with impaired awareness. Normal systemic and neurological examination. Discharged after 24 hours of seizure free period on oral levetiracetam with normal mental status.

EEG -no epileptiform discharges.
MRI Brain- mild supratentorial ventriculomegaly with subtle gliotic changes in periventricular white matter in left parietal lobe.

Day 4

Sleep disturbances, aggressive behaviour, inarticulate speech for 3 days, recurrent right clonic seizures and right sided deviation of the angle of the mouth and was hospitalised. Controlled by phenytoin, lacosamide, phenobarbitone and clobazam. mRS- 5



Left temporal irritative focus suggestive of epilepsia partialis continua.

Day 6

Developed visual and auditory hallucinations, delusions.
Diagnostic criteria for possible AE fulfilled-pulse corticosteroid therapy (1g for 5 days) and IVIG (2gm/kg) started. mRS- 2.

- CBC, vitamin B12, vitamin D normal
- CSF positive for Anti NMDAR Antibodies.
- CSF tumor markers, meningitis PCR Panel (including HSV) -negative. Thyroid profile, Anti-TPO antibodies- negative.
- Collagen vascular work up-negative.
- PET whole body- normal.

12 and 18 months

4 doses of rituximab were given every fortnightly -750mg/m^2

On follow up she has recovered completely with one anti seizure medication.
Modified Rankin Score- 0.
Best responder.